



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------------|
| 10/540,291 | 06/20/2005 | Johannes Hysky | HYSKY ET AL - N1 PCT | 1058 |
| 25889 | 7590 | 12/12/2008 | | |
| COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576 | | | EXAMINER HUDA, SAEED M | |
| | | | ART UNIT 1791 | PAPER NUMBER |
| | | | MAIL DATE 12/12/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/540,291 | Applicant(s) HYSKY ET AL. | |
| | Examiner SAEED M. HUDA | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/26/2006 and 07/11/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 is phrased using improper English; specifically, two verbs are used. Correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sartakoff (US 2768106) in view of LeBreton et al. (US 2003/0151171 A1).
 - a. With regards to claim 17, Sartakoff disclose a mold couple comprising two molds (1) that have chambers (2) and where two sheets of organic plastic (P) are placed between the members of the mold couple (column 3, lines 73-75 and column 4, lines 1-5). Between these sheets are interposed a pressure bag (4) of any appropriate distendable (elastic) material, such as rubber (column 4, lines 6-8). Sartakoff states that hot water is used to soften the plastic sheets and such hot water may be introduced into the mold cavities (2) (figure 2 and column 4,

Art Unit: 1791

lines 55-57). Produced are two semifinished products (originally labeled 'P' in figure 1). Sartakoff, however, fails to disclose that the semifinished products are made of open-pored duroplastic (thermoset) material which are impregnated with thermosetting binder.

LeBreton et al. teach a method of manufacturing hollow, fiber reinforced thermoplastic composite articles (abstract) where the preform is positioned into a rigid mold and an inflatable core contained within the preform is internally pressurized to compress and hold the preform within the mold. The inflatable core may be a flexible rubberized bladder or a thermoplastic liner made by blow molding and the inflatable core is pressurized while the preform is heated within the mold ([0014] - [0016]). LeBreton et al. disclose that the material used is a thermoset resin reinforced fiber composite (i.e. the fibers form pores that are open in nature). It would have been obvious to one skilled in the art at the time of the invention to use the thermoset resin reinforced fiber composite of LeBreton et al. in the invention of Sartakoff because thermosets is a strong plastic material that forms a 3-D network of bonds and is suited to high-temperature applications up to the decomposition temperature of the material.

b. With regards to claim 18-19, Sartakoff, in the rejection for claim 17 above, teaches most of the limitations for this claim; however, fails to explicitly teach that the semi-finished products are made of open-pored thermoplastic material and that the semi-finished products are heated before being fed into the forming tool. LeBreton et al. teach that the thermoplastic resin fiber reinforced composite can

be formed ([0004]). LeBreton et al. go on to teach that the preform a heat source such as hot air, infrared, or a flame is used to soften the thermoplastic and thereby bind the filaments together ([0049]). It would have been obvious to one skilled in the art at the time of the invention to use thermoset material, as disclosed in LeBreton et al., in the invention of Sartakoff because thermoplastics have good impact and abrasion resistance, greater shelf life, recyclibility, uniform wall thickness, precision molding accommodation, smooth internal finish, texturized external finishes, low toxin or solvent emission, and lower exothermic reactions ([0004]).

c. With regards to claim 20, Sartakoff teaches that after the sheets have been shaped, it is necessary to set the sheets in shaped condition so that they will not tend to lose some of the imparted shape. This can be done by admitting cold water to the mold cavities to flow over the exterior of the shaped sheets and cool them to setting temperature (column 5, lines 31-33).

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sartakoff (US 2768106) in view of LeBreton et al. (US 2003/0151171 A1) as applied to claim 17 above, and further in view of DeWinter et al. (US 20030164576 A1).

The modified invention of Sartakoff fails to teach that undercuts are provided on the mold. DeWinter et al. teach a molding process where skin layers are formed against a mold wall (abstract). The first mold section shows undercuts ([0016] and figure 1). It would have been obvious to one skilled in the art at the time of the invention to use the undercuts in the invention of Sartakoff because undercuts are a well known

Art Unit: 1791

shape/feature as exemplified by the teaching of DeWinter et al. This choice is a design choice made to form the desired article, in this case an article with an undercut region.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sartakoff (US 2768106) in view of LeBreton et al. (US 2003/0151171 A1) as applied to claim 17 above, and further in view of Debalme et al. (US 2002/0012765 A1).

The modified invention of Sartakoff fails to teach that the products are fed to the forming tool unwound from coils. Debalme et al. teach that a hollow composite body includes an internal layer formed from a thermoplastic, which constitutes the liner of the body, a composite interlayer formed from a thermoplastic in which reinforcing fibers are embedded, and an external layer formed from a thermoplastic. The hollow composite body is made by furnishing the external surface of the liner with a composite so as to constitute a preform, the composite consisting of a thermoplastic mixed with reinforcing fibers; introducing the preform into a mold, an inflatable bladder having been inserted into the preform; heating the preform and inflating the inside of the bladder in order to apply pressure against the internal wall of the preform (abstract). The tape is fed from a would package ([0034] and figure 2 #34). It would have been obvious to one skilled in the art at the time of the invention to unwind the product from coils, as disclosed in Debalme et al., in the invention of Sartakoff because storing the product on coils and using these coil to unwind from allows for a continuous, efficient feed method and thus an efficient process.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAEED M. HUDA whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791

/SAEED M. HUDA/
Examiner, Art Unit 1791